



Geospatial Standards Management Committee

Geospatial Support Data Extensions

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Background and current efforts

- **DIGEST version 2.0**
 - Source document for geospatial information for NITF and NSIF
- **NSIF**
 - Geospatial SDEs required for all NATO systems implementing NSIF
 - NSIF Study Draft 1 points to DIGEST for GeoSDEs
- **NITF version 2.1**
 - No extensions required for certification
 - Inconsistencies between NSIF and NITF may not ensure interoperability
 - GeoSDEs required for NSIF, recommended for NITF
- **RPF-NSIF Annex D Crosswalk**
 - Initial review completed by JITF
 - Identified some inconsistencies
 - Goal is to develop single set of GeoSDEs



Background and current efforts (cont)

- **Commercial Satellite Vendors**
 - Expressed a need for single GSDE set to meet requirements of their user communities
 - Proposed GeoSDEs somewhat different from NSIF/DIGEST
- **Airborne and National Systems**
 - Each has own set of SDEs
 - Duplication of majority of fields of information
- **Library Systems (IPA/IPL/5D and NSIL)**
 - Extensions used to catalog information



User requirements

- **Identify user requirements**
 - NATO requirements (NSIF)
 - DIGEST requirements (DIGEST Annex D)
 - Commercial satellite vendor requirements
 - Library requirements (NSIL)
- **Consolidation of SDEs**
 - Develop a consistent set of SDEs
 - Minimum number of SDEs to satisfy all, or most of, the requirements



Geospatial SDEs

- **GEOPS--for geo-referencing parameters (datums, ellipsoids, projections..._**
- **GRDPS--for non-rectified image, raster, or matrix data positioned with a location grid**
- **GEOLO--for data rectified with geographic (lat/lon) coordinate systems**
- **MAPLO--for data rectified with cartographic (E/N) coordinate systems**
- **REGPT--for registration points in either geographic or cartographic systems**
- **ACCPO--for horizontal and vertical accuracy**



Geospatial SDEs (continued)

- **ACCHZ-- for horizontal accuracy**
- **ACCVT--for vertical accuracy**
- **SNSPS--for sensor parameters**
- **SOURC--for map source information**



RPF Tags

- **RPFHDR--merge into NITF File Header**
 - RPF header and location section
- **RPFIMG--merge into Image Subheader**
 - Coverage
 - Compression, color/grayscale and image included in Image Data
- **RPFDES--merge into DES Subheader**
 - Attributes, related images and replacement/update



GeoSDE and RPF Extension Comparison

- **Three aspects to the RPF extensions:**
 - Multifile Product Structure
 - File Structure
 - Geospatial Attributes
- **GeoSDE only addresses the attributes**
 - RPF attributes generally a subset of GeoSDE
 - Some differing field lengths
 - ASCII vs Real value representations



Proposed way ahead

- **Command/Service Update**
 - Full informational presentations and white papers presented at GSMC
- **NIMA**
 - Develop proposed set of consolidated, consistent SDEs to address RPF/NITF/NSIF/DIGEST requirements
- **DGIWG**
 - Consolidate GeoSDEs into DIGEST
 - Support NSIF Custodian with coordination of NSIF
- **NSIF Custodian**
 - Support DGIWG and present NSIF status to NATO Air Group IV
 - Submit NSIF Ratification Edition 2 to Air Group IV in June 98
 - NSIF GeoSDEs contained in updated version of DIGEST



Schedule

- **8-12 December 97**
 - NSIF Custodian Meeting
 - Deleted GeoSDEs from NSIF
- **8 January 98**
 - GeoSDE kickoff TEM
- **2-6 February 98**
 - DIGEST Working Party
- **20 February 98**
 - NIMA Geospatial Standards Management Committee Meeting
 - RPF/NSIF Crosswalk TEM to develop RPF extension requirements
- **3-5 March 98**
 - NTB



Schedule (continued)

- **6 March 98**
 - G/ISMC
- **30 March-3 April 98**
 - NSIF Custodian Meeting
- **June 98 (dates TBR)**
 - Joint DIGEST/NSIF/NITF/RPF meeting
 - NTB and G/ISMC
 - NATO Air Group IV
- **September 98**
 - NTB and G/ISMC
 - Submit proposed changes to NITF extensions to accomodate RPF
 - Recommed retirement of RPF